

III. REMARKS

1. Claims 1-17 remain in the application. Claim 12 has been amended.
2. Applicants appreciate the indication that claim 9 is allowed.
3. Applicants respectfully submit that claims 1-5, 7, 8, and 10 are patentable over the combination of Bass (US 5,896,574) in view of Knighton et al. (US 6,032,866, "Knighton") under 35 USC 103(a).

The combination of Bass and Knighton fails to disclose or suggest transmitting data between the data communication device and the wireless device so that the data communication device operates as an ordinary expansion memory from the view point of the electronic device., as recited by claims 1, 7, and 8.

Neither Bass nor Knighton discloses a data communication device that, when mounted into a general purpose expansion memory location of an electronic device, would operate as an ordinary expansion memory from the viewpoint of the electronic device because both require the auxiliary devices with communications capability to act as I/O devices.

In other words, the cited references, either alone or in combination fail to show an electronic device that thinks it is simply sending data to memory, when in fact, a data communication device is sending the data to a wireless device.

According to the invention, a short-range data communication device is attached into a general purpose expansion memory location of a host electronic device, and uses a radio frequency, short-range, wireless communication link between the data communication device and another appliance referred to as a wireless device to establish communications between the wireless device and the electronic device. However, the electronic device thinks it is using an ordinary expansion memory.

Thus, the electronic device in question does not even need to know that it has a wireless connection to somewhere: according to the end part of claim 1, from the viewpoint of the electronic device the data communication device (and thus the whole wireless communications link) operates like an ordinary expansion memory.

For example, the electronic device may be a digital camera, which is used to store the pictures it takes into a flash memory card installed into a general purpose expansion memory slot. Instead of an ordinary flash memory card, a "data communication device" according to the invention may be installed into the expansion memory slot of the camera. The camera still operates as if it is storing the pictures into a flash memory, whereas in reality the data communication device is busy transmitting the pictures further to a wireless device.

The Examiner continues to cite PCMCIA-based solutions against Applicants' claims. However, as explained in the beginning of the specification of the application, a PCMCIA card is not a general purpose expansion memory, and consequently a PCMCIA slot in an electronic device is not a general purpose expansion memory location. The PCMCIA standard as such is a very widely

applicable standard, so that a very large selection of different kinds of devices - including wireless transceivers - may be manufactured in the PCMCIA format, and installed into the PCMCIA slot of an electronic device.

However, all prior art short-range wireless PCMCIA transceivers have the common disadvantage that they require the host device to comprise a program, which tells the host device exactly how to use the short-range wireless PCMCIA as communications means. In other words, an electronic device equipped with a short-range wireless PCMCIA transceiver must be very well aware of that it has a communications device (actually: an I/O device) in its use, and in order to set up and use a short-range wireless communications link through the PCMCIA transceiver the host device must itself have a very active and dominant role.

Bass confirms this by reiterating in column 4, lines 51-53, how the PCMCIA standard allows a PCMCIA card to be of the "memory" type or the "I/O" type, and very explicitly stating in column 4, lines 63-65, how "the baseband PCMCIA adapter card looks to the PCMCIA bus as an I/O card type". It cannot be said in any clearer way than this: the host device of Bass knows it is using an I/O device, and does not think that it would be just accessing an expansion memory.

The Examiner also cites Knighton, which describes connecting an auxiliary device into a PCMCIA slot. As mentioned above, the PCMCIA slot is not a general purpose expansion memory location, so Knighton, like Bass, fails to teach this limitation of the claims. Additionally, since Knighton's optical data reader is without question a data input device, it is clear that when

connected to the PCMCIA bus of the host computer it too must act as a card of the I/O type.

Applicants wish to point out that the main concept of Knighton is the foldability of the PCMCIA device, mentioning a memory on line 42 of column 6 of Knighton only suggests that one could make a foldable memory, which in an unfolded state would fit into the PCMCIA slot. This is not the same as disclosing a communications device that, while inserted into a general purpose memory location, would from the viewpoint of the host device act like an ordinary expansion memory while still making a wireless connection to an external wireless device. Knighton discloses that a foldable PCMCIA memory may be constructed and mounted into a PCMCIA slot, in which case the memory would certainly operate according to the "memory type" PCMCIA specifications, and that one can make a foldable PCMCIA input/output device and mount it into a PCMCIA slot, in which case the PCMCIA input/output device would be obliged to operate according to the "I/O type" PCMCIA specifications.

Thus, neither Bass nor Knighton discloses a general purpose expansion memory location because a PCMCIA is not such a location. Neither Bass nor Knighton discloses a data communication device that, when mounted into a general purpose expansion memory location of an electronic device, would operate as an ordinary expansion memory from the viewpoint of the electronic device because both require the auxiliary devices with communications capability to act as I/O devices.

At least for these reasons, Applicants respectfully submit that the combination of Bass and Knighton fails to render independent

claims 1, 7, and 8, and dependent claims 2-5 and 10 unpatentable.

4. Applicants respectfully submit that claim 6 is patentable over the combination of Bass in view of Nakajima et al. (US 6,085,225, "Nakajima") and Knighton under 35 USC 103(a).

The combination of Bass, Nakajima, and Knighton fails to disclose or suggest transmitting data between the data communication device and the wireless device so that the data communication device operates as an ordinary expansion memory from the view point of the electronic device, as recited by claim 6.

Nakajima fails to supply the features missing from Bass and Knighton, that is, any general purpose memory locations or data communication devices that, when mounted into a general purpose expansion memory location of an electronic device, would operate as an ordinary expansion memory from the viewpoint of the electronic device.

Therefore, claim 6 is patentable over the combination of Bass, Nakajima, and Knighton.

5. Applicants respectfully submit that claims 11-17 are patentable over the combination of Bass, Knighton, and Okaue et al. (US 6,170,743, "Okaue") under 35 USC 103(a).

5.1 The combination of Bass, Knighton, and Okaue fails to disclose or suggest a communication device for wireless data communication is arranged to mount into a general purpose expansion memory location of the electronic device, said communication device being arranged to operate as an ordinary

expansion memory from the viewpoint of the electronic device, as recited by claims 11, 12, and 17.

The combination of Bass and Knighton fails to disclose or suggest these features for the reasons argued above.

Okaue discloses a general purpose expansion memory location and a general purpose expansion memory (memory card) that can be attached thereto. However, nowhere in any combination of any of the cited references can any teaching, motivation or suggestion be found that a data communications device, which prior art documents consistently introduce as an I/O device, should be attachable to a general purpose memory location (remember that PCMCIA is not one). Even if we would, for the sake of argument only, equate PCMCIA with a general purpose memory location, nowhere in any combination of any of the cited references can any teaching, motivation or suggestion be found that a data communications device, which is attachable to a general purpose memory location, could have the dual functionality of setting up and maintaining a short-range, wireless, radio frequency connection with an external wireless device while simultaneously appearing as an ordinary expansion memory from the viewpoint of the host device it is attached to.

5.2 The combination of Bass, Knighton, and Okaue also fails to disclose or suggest circuitry for preventing another process from changing the first and second memories during an LPRF-data transmission, as recited by claim 13.

Neither Bass nor Knighton has any disclosure related to preventing memory changes during LPRF transmission.

Okaue discloses a memory card 2 with an erase prevention switch 23. A host computer reads a register indicating the status of the switch 23 before writing a file to the memory card. As part of the reading process, the contents of the register are "transmitted" to the host computer as shown in Figure 5, step 11. If the erase prevention switch is on writing is prevented.

There is nothing whatsoever related to LPRF data transmission in Okaue, and more specifically, nothing related to preventing another process from changing the first and second memories during an LPRF-data transmission. Okaue only discloses reading the status of a switch and preventing a write operation if the switch is on.

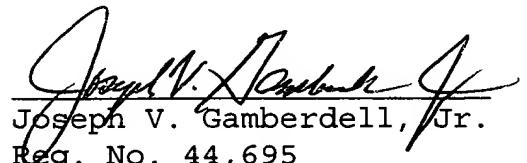
At least for these reasons, Applicants submit that independent claims 11, 12, 13, and 16, and dependent claims 14, 15, and 17 are patentable over the combination of Bass, Knighton, and Okaue.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

A check in the amount of \$450.00 is enclosed for a 2 month extension of time.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,


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25 July 2005
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